

1 Fw

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

**INFORMATION DISCLOSURE STATEMENT**

APPLICANTS: Ernst Neumeierl et al. CONFIRMATION NO.: 3106  
SERIAL NO.: 10/756,084 GROUP ART UNIT: 2882  
FILED: January 13, 2004  
TITLE: "COOLING ARRANGEMENT FOR AN X-RAY TUBE HAVING  
AN EXTERNAL ELECTRON BEAM DEFLECTOR"

Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

S I R:

In accordance with the provisions of 37 C.F.R. § 1.56, Applicants request that citation and examination of the following documents be made during the course of examination of the above-referenced application for United States Letters Patent.

AA United States Patent No. 6,529,579  
AB United States Patent No. 6,128,367  
AC United States Patent No. 6,055,294  
AD United States Patent No. 5,909,479  
AE United States Patent No. 5,689,542  
AL European Patent Application 0 009 946

**EXPLANATION OF RELEVANCE**

Reference AA discloses a cooling system that is disposed around the neck region of a rotating anode x-ray tube, wherein the cathode is contained in a portion of the housing connected by the neck region to the portion of the housing which the anode is disposed. A conduit in which coolant can flow is thereby formed around a beam deflection element.

References AB and AC disclose rotating anode structures similar to that of Reference AD, which was identified and discussed in the present specification at page 2. Each of those structures has a housing with a housing portion containing the rotating anode and a housing portion containing the cathode, the housing portions being connected by a narrow neck region, with a beam deflector disposed at the neck region.

Reference AE discloses an x-ray generating apparatus having a pair of chambers for circulating a coolant fluid placed between an anode target and the electron source at an exterior of the housing as shown in Figures 3A, 3B and 5.

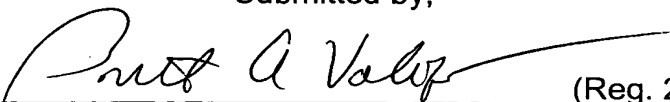
Reference AL discloses an x-ray tube having a housing, as shown in Figure 4, wherein two blind holes are drilled so as to form a V-shaped conduit for coolant. The electron beam passes through an opening 13 disposed within the V-shaped conduit.

Copies of each of the above references together with Form 1449 are submitted herewith.

As of the date of mailing of this Information Disclosure Statement, a first Office Action on the merits has not been received in connection with this application. This Information Disclosure Statement is therefore in compliance with 37 C.F.R. §1.97(b)(3), and no fee is necessary.

All claims of the application are submitted to be patentable over the teachings of the above references, taken singly or in combination. Early consideration of the application is therefore respectfully requested.

Submitted by,

  
(Reg. 27,841)

**SCHIFF, HARDIN LLP, CUSTOMER NO. 26574**

Patent Department, 6600 Sears Tower

233 South Wacker Drive

Chicago, Illinois 60606

Telephone: 312/258-5790

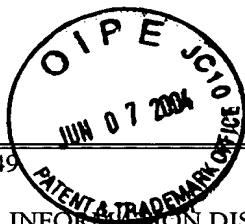
Attorneys for Applicants.

**CERTIFICATE OF MAILING**

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450 on June 4, 2004.

  
BRETT A. VALIQUET

CH1\4150597.1



Sheet 1 of 1

Form PTO-1449

INFORMATION DISCLOSURE CITATION  
IN AN APPLICATION  
(use several sheets if necessary)

Docket No.  
P03,0563Serial No.  
10/756,084Applicant  
Neumeier et alFiling Date  
January 13, 2004Group Art Unit  
2882

## U.S. PATENT DOCUMENTS

Examiner's Initials		Document Number	Date	Name	Class	Subclass	Filing Date If appropriate
	AA	6,529,579	03/04/03	Richardson			
	AB	6,128,367	10/03/00	Foerst et al.			
	AC	6,055,294	04/25/00	Foerst et al.			
	AD	5,909,479	06/01/99	Rother			
	AE	5,689,542	11/18/97	Lavering et al.			
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

## FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No
	AL	0 009 946	04/16/80	Europe				
	AM							
	AN							
	AO							
	AP							
	AQ							
	AR							
	AS							

## OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

	AT	
	AU	
	AV	
	AW	
	AX	
	AY	
	AZ	

Examiner

Date Considered

**\*EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.